REMARKS

The Examiner asserted during a phone conference on June 26, 2002 with the undersigned attorney that the above structural amendment to claim 1 (and the subsequent amendments to independent claims 8 and 14) would put the above claim(s) in condition suitable for allowance. As shown above, this amendment specifically discloses which components comprise the first and second portions and delineates exactly how the novel auxiliary bus only couples the first and second portions (control modules only) together. This amendment further shows that this novel "auxiliary" bus also provides rapid unencoded (i.e., does not require encoding and then decoding of a signal) signal that are directly communicated between the anti-skid assembly and the regenerative braking assembly. None of the references cited disclose or suggest this novel communications feature.

Additionally, the Examiner indicated that a substitute specification is required as the original specification did not leave enough space in the top margin. A substitute copy of the original patent Application (with enlarged top margins) is attached. No new matter has been introduced by this substitute specification as only the top margins have been changed. Note that a copy of the original claims are included with this substitute specification, but are not intended to be introduced and are for reference purposes only. If the Examiner has any further questions regarding this matter, please feel free to call the Applicants' undersigned attorney at (248) 865-9588.

Respectfully submitted,

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"MARKED UP" VERSIONS OF AMENDED CLAIMS

Claim 1 "marked up" version

A braking system for use within a vehicle having a first pair of wheels which is selectively driven by an electric machine, and a second pair of wheels, said braking system comprising:

a first portion comprising a motor control module and an electric motor, said motor control module which is coupled to said first pair of wheels which selectively provides a regenerative braking function at said first pair of wheels;

an encoded communications bus;

a second portion which is communicatively connected to said first portion by said encoded communications bus and which selectively provides an antiskid braking function at said first and second pair of wheels, said second portion including an antiskid control module and two pairs of frictional braking members which are respectively and operatively coupled to said first and second pair of wheels [being effective to detect antiskid braking events at each of said wheels, and which communicates a signal to said first portion, effective to selectively disable said regenerative braking function only if an antiskid braking event is detected at either of said first pair of wheels]; and

an auxiliary bus which is disposed only between said motor control module and said antiskid control module and which directly and communicatively couples said [first portion] motor control module to said antiskid control module [second portion], said auxiliary bus only transmits unencoded signals between said motor control module and said antiskid control module, effective to permit said motor control modules to communicate with said antiskid control module [signals from said first portion to communicate with said second portion]

relatively rapidly;

wherein said antiskid control module is effective to detect antiskid braking events at each of said wheels, and which communicates both an encoded signal through said encoded communications bus and a unencoded signal through said auxiliary bus to said first portion, effective to selectively disable said regenerative braking function only if an antiskid braking event is detected at either of said first pair of wheels.

Claim 3 "marked up" version

The braking system of claim [1] 2 wherein said vehicle further comprises an electrical power source which is connected to said electric machine and selectively receives electrical power from said electrical machine when said first portion provides said regenerative braking function, said first portion being further effective to detect when said electrical power source is fully charged and to selectively disable said regenerative braking function in response to said detection.

Claim 6 "marked up" version

The braking system of claim 1 wherein said [first portion is further communicatively coupled to said second portion by use of] encoded communications bus is a CAN bus.

Claim 8 "marked up" version

A braking system for use within a vehicle having a first pair of wheels which is selectively driven by an electric machine, and a second pair of wheels, said braking system comprising:

a regenerative braking system which is communicatively coupled to said electric machine and which selectively causes said electric machine to provide a regenerative braking function at said first pair of wheels;

an encoded communications bus;

an unencoded communications bus which only transmits unencoded signals; and

a friction braking system which is communicatively connected to said regenerative braking system through both said encoded communications bus and said unencoded communications bus and which selectively provides friction braking at said first and second pair of wheels, said friction braking system being effective to detect antiskid braking events at each of said wheels and to selectively provide an antiskid braking function at each of said wheels where said antiskid braking events are detected, said friction braking system being further effective to communicate a signal to said regenerative braking system effective to disable said regenerative braking function only if said antiskid braking event is detected at either of said first pair of wheels; [and]

[an auxiliary bus which directly and communicatively couples said regenerative braking system to said friction braking system, effective to transmit unencoded signals in a relatively undelayed manner] wherein said unencoded communications bus is disposed only between said regenerative braking system and said friction braking system.

Claim 10 "marked up" version

The braking system of claim 8 wherein said [regenerative braking system is further communicatively coupled to said friction braking system by use of] encoded communications

bus is a CAN encoded bus.

Claim 14 "marked up" version

A method for braking within a vehicle having a first pair of wheels and a second pair of wheels, a regenerative braking system which selectively provides a braking force to said first pair of wheels and an antiskid braking system which selectively provides a friction braking force to said first and second pair of wheels, said method comprising the steps of:

providing an auxiliary bus;

selectively and directly coupling said regenerative braking system and said antiskid braking system together by use of said auxiliary bus and an encoded CAN bus, wherein said auxiliary bus is only communicatively disposed between said regenerative braking system and said antiskid braking system and is effective to communicate only unencoded signals between said regenerative braking system and said antiskid braking system relatively rapidly;

detecting an antiskid braking event;

determining whether said antiskid braking event is occurring at either of said first pair of wheels; and

transmitting an unencoded signal through said auxiliary bus to selectively [disabling] disable said regenerative braking system if said antiskid braking event is [only] occurring only at either of said first pair of wheels.